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COMMUNICATIONS.

Water: its History, Characteristics, Hygienic, and Therapeutic Uses.

BY SAMUEL W. FRANCIS, A.M., M.D.,
Of New York.

(Continued from page 441.)

IN CHEMISTRY.

Though Priestly, to the last, maintained the unity of water, as an element in itself, indivisible and pure; and wrote for years with ability and vigor; this his pet theory was abandoned by his followers, when Sir Humphrey Davy, with originality of conception and persevering industry—not content with reaping immortality from his useful and magical Safety Lamp—entered the field of investigation, and, with electricity as his ably ally, separated what had been wedded for centuries. Placing the + positive hydrogen at one pole, and — negative oxygen at the other, he thereby not only proved to the entire satisfaction of his contemporaries the existence of two distinct gases, but the presence of that subtle fluid which is ubiquitous and ever ready to respond to the call of a truly scientific mind. To touch generally and with only a specific purpose upon the vast importance of water in the laboratory, it is only necessary to mention the fact that no utensil could be used twice with safety, as to chemical analysis or analytical precision, did there not exist a fluid which could be employed for the purpose of *thoroughly* cleansing all apparatus after being soiled, thereby freeing them from surrounding contamination and partial disorganization. No one can deny the prominent part borne by water in the mysterious agency of the Voltaic pile. The electro-chemical battery, be it of Bunsen make; after the thoughtfulness of a Grove; the suggestions

of a Wollaston, or the later investigations of Prof. Daniell, would soon wear itself away by too great an ambition, and the excess of "action"—local or otherwise—if water were not employed to dilute the acids and restrain the consumption of valuable material. This may seem trivial, but to the cogitator of simple certitudes, it is an indispensable fact that cannot be controverted. Men of the grasp of mind and vast calibre of Faraday and Berzelius, Hare and Humboldt, willingly testify to the immense, almost incalculable benefit to be derived from the "pneumatic trough." And, I would ask, what other accommodating liquid would permit, with the same amount of freedom and *good-will*, the passage of gases into jars through its medium, and demand so little outlay, while bestowing such countless additions on the world of theories and stubborn facts?

Electro-gilding, etc., would now deprive Elkington and Murray of what is justly theirs, were water absent on their days of labor. The experiments and practical results of Jacobi and Spencer, Smee and Becquerel, would prove of no avail, did this all-powerful friend cease his vocation, and leave them to themselves. It is positively necessary to remove from the field of science water—then reflect—and what a stand still would be produced at the absence of this "common servant." Chemical action and electrical results would be diminished to a far greater extent than at first sight would seem to be the case. It restrains too great waste; lessens the intensity and rapidity of sparks at times, and is also, when needed, or at the call of nature's fiat, an excellent conductor, as is readily perceived by the injury produced upon the telegraph during the raging storm and watery conflict of the elements?

Were it only as a guardian watching over the secret movements and tortuous glidings of its direst foe—Fire!—were it only, I repeat, to keep within the limits of propriety, the progress of the remorseless flame, should

we not experience the most grateful emotions for so wise a gift from Heaven, so beneficial a ruler?

Most of the mechanical solutions are through its direct agency, acids acting with chemical affinity, and changing the substance submerged beneath their placid surface, while water, as a safeguard, only retains intact what has been placed in its charge and gives forth again, with all its pristine excellence, what was committed to its care.

Few, who are not called upon in life to test their merits, can fully appreciate the utility of hydrometers in practical life. Experience can, alone, testify their worth. The discovery of the composition of water by Cavendish, in 1781, has been disputed by some, who assert that before that time James Watt brought forward a similar theory, and urged its merits. Be that as it may, this protoxide of *Hydrogen consists of one atom of †oxygen and one of hydrogen, with a difference of weight as one to eight; of volume, of one to two.‡ Experiments with the eudiometer are exceedingly interesting, and carry conviction with them.

According to the analysis of Dr. Schweitzer, § of Brighton, in 100 grains of water, taken from the British channel, the following was the result:—

Water, - - - - -	94,745
Chloride of sodium, - - - - -	27,059
“ “ potassium, - - - - -	0,766
“ “ magnesium, - - - - -	3,666
Bromide of magnesia, - - - - -	0,029
Sulphate of magnesia, - - - - -	2,296
Sulphate of lime, - - - - -	1,406
Carbonate of lime, - - - - -	0,333
Traces of iodine and ammoniacal salts.	

1,000,000

The specific gravity was ascertained to be 1.0274 at 60°. (15.5c.)

This is the result of testing sea-water, which is necessarily acted upon by the influence of ice or vicinity of rivers, which materially affect its density.||

The chemist and medical practitioner can appreciate the important advantages to be obtained from the judicious use of hydrates in their respective branches of study. The “water of crystallization” teaches the mathematician

some of the curious results of geometrical precision in its figure. The ultra-marine tint of the boundless sea, more beautifully perceptible in Switzerland and in the neighborhood of the Alps, is suggestive in purity and surpassing in significance. The rainbow hues and unequalled splendor of the “North,” as represented by a truthful and inspired artist,* are only to be met, in comparison, by the variegated clouds themselves—water, in mist—as sunset reveals their latent charms and reflective power. Chemistry unfolds exact truths in the composition and utility of water, and metes out its vast advantages. It is my purpose only to pass over with pensive allusions the results of labors that have called forth to work such men as Dr. Baumert and Prof. Dalton, our adopted Draper, and the learned Hare, only *spiritually* ignorant. Even as heat may be evolved by rubbing two pieces of ice, in *vacuo* at 32°, so the attrition of the world brings forth warm-hearted deeds from stony-souled men.

To follow out the views of Laplace and Lavoisier, Magnus and Borda, relative to the expansibility of solids, would only be to corroborate the opinions of Rater, Dulong, and Petit. It will be sufficient, for the present, to take the table below as a fair estimate of the relative capabilities of fluids.

†Apparent dilution in glass between 32° (0°c.)
x. q. 12° (100°c.)

Water, - - - - -	1
Hydrochloric acid, sp. gr. 1.137, - - - - -	27
Nitric acid, sp. gr. 1.4, - - - - -	1
Sulphuric acid, sp. gr. 1.85, - - - - -	17
Ether, - - - - -	14
Olive oil, - - - - -	12
Alcohol, - - - - -	1
Mercury, - - - - -	74

No one can dispute the necessity of a thermometer! The majority of intelligent human beings are sufficiently well acquainted with the part occupied by boiling water and ice in aiding Fahrenheit, many, many years after Sanctorio employed his vapor test, also indebted to water for assistance. Even in the different preparations of calcium how rare, comparatively speaking, is the *anhydrous* sulphate of lime to be met with! Could “seagliola” and stucco be employed or even manufactured without the aid of water? Of what possible utility would be the suggestions of Dr. Ritterband and Prof. Clark, with reference to the carbonate of lime

* A *Binoozide* was discovered by M. Thenard in 1818.

† M. Dumas' investigations.

‡ Ann. Chim. et Phys. xv. 336.

§ Phil. Mag. July 1839.

|| See the views of George Townes, F.R.S.

* Church's *Icebergs*.

† Pélet's *Éléments de Physique*.

and marble, calcsinster or travertin, and the process of overcoming obstacles, while reducing strange realities to particular common sense, were it not for the agency of water?

Though Dr. Baumert asserts that a teroxide of hydrogen exists, Dr. Andrews maintains with equal vigor, that it is merely active oxygen. Recent students of chemistry are greatly indebted to the personal exertions of Baron Liebig for many instructive precepts of weighty influence and suggestive purport. To him many of the aphorisms of learned times, relative to the tension of the vapor of water are justly attributed. Whether we study the tables of specific gravity* as published by Baumé, in connection with the experiments of the hydrometer, or employ the views of Cartier, Sike, and Twaddell; whether we enter into the composition of "yttrio-tantalite," found in Sweden and Finland, or seek to follow out the deductions of Virchow relative to the blue pigment, in crystals, which he discovered in unhealthy urine; whether we analyze the constituent parts of Triethylphosphine, and peruse the works of such as Frankland, Calours, and Hoffmann, regarding the subject of phosphorous bases, the same connection will ever be pre-eminent in our minds that water will have a representative in their formation, solution, or detection; that either hydrogen or oxygen will send some of their family to influence their constituents, and that one of their compounds or associates must and will be present.

In vinous fermentation the spirit that is at first obtained from the distillation of fermented, saccharine liquids, is diluted by great quantities of water. Volatile and essential oils, such as those obtained from the pimpinella, anisum, bergamot, cubeb, juniper, elemi, the East Indian grass-oil, and the laurel-oil of Guiana, hydro-carbons in their characteristics, and isomeric, with those of turpentine, and lemons, are principally obtained by distilling the plant with water.

Ruthenium,† which defies the action of even aqua regia, furnishes a *hydrate* of blackish brown in its nature, and soluble in acids with orange-yellow color, which, when better known, will furnish much that is useful in art and science. Experiments with the water hammer, unfold new wonders in the laws of sound, when acted upon by agents in *vacuo*. Though

* See the *Handwörterbuch der Chemie* of Liebig and Poggendorff.

† Described by M. Claus.

trichlorovaleric acid, ($C_{10} (H^6 Cl^3) O^4$, Ho,) cannot be distilled without decomposition, if put into water it becomes a "third fluid hydrate." The views of Kolbe and Wurtz, relative to amyllic alcohol and its derivatives, abound in experiments with ice, boiling water, and steam. Zirconium, whose properties have been rendered so fascinating by the astute Swanberg, is obtained by heating its double fluoride and potassium with potassium, and then removing the salt by *cold water*. The indefatigable Kopp, after the most minute and careful application, declares it as his opinion that the point of greatest density of water is $39^{\circ} 34$, ($4^{\circ} 08C.$), a statement which the beautiful illustrations of Dr. Hope corroborate to the fullest extent. There does not exist a substance in the range of a scientific investigation, that approaches water in its vast assistance in the experiments made in all countries respecting the laws of heat and their variation. Whether it be iron shells filled with water and permitted to freeze; a thermometer tube filled with water and allowed to cool; the latent heat of a variety of chosen tests*; specific gravity, as applied to chemistry; the maximum density of vapors, dependent on the temperature; the liquification of permanent gases†; specific heat, at equal pressure, enlarged upon by Count Rumford, and discussed by Delaroche, Berard, and Dulong; or the change of state, as seen in crystallization—one and all would prove of no avail were water negligent in its apportioned task of leading on the philosophic meditator, and rendering the task of new discovery a simple fact that needs but to be chained within the limits of a natural law. In diathermancy, or the transmission of heat, the busy minds of Melloni‡, Oersted, of Copenhagen, and Seebeck, of Berlin, were forced to include in their valuable tables of reference by the side of plate-glass, rock-salt and berge, "Ice, pure and transparent!"

Students of the past accord to Newton originality of conception in the undiscovered field of *light* and color. Do they sufficiently acknowledge their obligations to the refractive properties and simplicity of elucidation as exhibited by the accommodating *BUBBLE*, so often blown and studied by that master intellect? If not, reflect on its wonderful aid; call to mind its diversity of power and unsurpassed

* The works of M. De la Provostaye and Regnault.

† See views of Sir Isambard Brunel and M. Thilorier.

‡ *Annales de chimie et de Physique* and Dr. Forbes.

beauty; meditate on the years lost to science | had water failed again, and surrender to it what is justly due!

In the list of refractive substances, we find together with the diamond, tabasheer and the bisulphate of carbon, *ice* and *water*. Though Newton, Brewster, and Stoke, aided by the prism, broke up the unity of light, and, at its bursting, found the magic *vincor!* above, where common people look for sympathy and guidance, in the cloudy firmament, the *rainbow* does reveal as beautiful creations and as fresh and luscious tints! To Wedgwood are we beholden for much information in the branch of early photography,* and in the art of "light-painting." Fox Talbot, (1839,) wrote fully to the satisfaction† of well-educated perusers. Nichol's prism is recommended by many versed in studies of this nature:

Herschel proves that various means may be employed in photographing objects with precision and their proper shadows; the thoughts of Drs. Dormé and Berres are worthy criticism, and the satisfactory results of M. Fizeau's experiments call forth admiration from the generous mind;‡ with this vast array of evidence, I still assert that had the persevering Daguerre been deprived of *iodine* whose native birth-place is the *Sea!*‡ fac-similes would have been reduced to the old fashioned portrait painting too expensive for modern popular aesthetics, and thousands would have lived with no link of past with present—"absent by our side!"

To glance over the theory of Ampère, and carefully examine the superior apparatus of Prof. de la Rive, as applied to electro-dynamic forces; we cannot but be struck with the field of inquiry of magneto-electricity, and the numerous efforts of Dr. Neef, in 1830, for the purpose of breaking off the current and simplifying an otherwise complicated construction. Grove was indebted to "Ruhmkorf's coil" for facility in effecting the decomposition of water by other means than those employed by the energetic Wollaston.

In making bread, with or without yeast; cooking food; testing for poisons, or discovering some new element, water has *always* formed an important part; become the most indispensable of instruments, and caused the least trouble while being employed. It was only by distilling tolu-balsam with water, that M. Frémy

caused it to yield three products, namely: benzoic acid, cinnamon and *tolene!* Turn where you will for information; peruse the works of Mitscherlich; consult the pages of Phillip's Mineralogy, or follow carefully the elaborate theories of Wöhler and Fordos, Gelis, and Wackenroder, and it will be found that one and all depend more, as a general rule, on water than upon any one other substance for efficiency. It is *rust* that iron fears! and noxious gases and acids, held in solution by the vapor of the air, do more injury to the metals in existence and the furniture of an establishment than one would at first admit, or readily assent to as an incontrovertible fact.

The subject of chemistry is too vast to enter more minutely into a consideration of its merits. Enough, however, has been said to convince the man of parts, and one open to conviction that hydrogen and oxygen, and their compounds, form the basis of chemistry and the source of knowledge in that branch of science.

To be Continued.

The Liver: its Condition in Pulmonary Tuberculosis.

By A. P. DUTCHER, M.D.,
Of Enon Valley, Lawrence County, Pa.

PART FIRST.

There are few organs which suffer more during the progress of pulmonary tuberculosis than the liver. These derangements sometimes exist at the beginning, and constitute annoying complications until the end. This is especially the case in persons of a highly bilious temperament. Here its functions will often become deranged for some time before even the tubercular disease manifests itself by either a suppression or augmentation of its secretion. When either of these conditions occur, they will always constitute a prominent feature throughout all the succeeding stages of the pulmonary disorder. When the liver takes on increased action, large quantities of bile will frequently be secreted, and, being discharged into the stomach and bowels, produce nausea, vomiting, and purging, which, if not promptly arrested, exhaust the patient's strength with great rapidity, and very greatly adds to the fatal tendency of the malady.

I have known several cases of phthisis to be very abruptly terminated in this way. It is not

* Journal of the Royal Institution, (1802.)

† Phil. Trans., 1840.

‡ The lithographic suggestions of M. Niepce are excellent.

§ First discovered by M. Courtois of Paris, 1812.

more than a year since I attended a case of this kind. The patient was a young man, aged eighteen, of a marked bilious temperament. From the very commencement of his illness, he had occasional attacks of vomiting and purging bilious matter. During these paroxysms, he would have all the various symptoms that are present in a severe attack of cholera morbus. The collapse was always very extreme, and it was with the greatest difficulty that reaction could be produced at all. He died in one of these paroxysms before the tubercular disease had progressed to the third stage.

As to the precise lesions upon which this morbid activity of the liver depends, writers are not agreed. Some suppose that it is produced by tubercular deposits in the liver; but this is not very evident, for tubercular disease of the liver in the adult is a very uncommon occurrence. Mr. Cruveilhier states that, among the numerous cases of phthisis which he has had occasion to examine, he never met with tubercles in the liver. M. Andral's and Dr. Carswell's testimony is to the same purport. M. Lanis, in his work on Phthisis, says that in two cases only had he observed a greater or smaller quantity of tuberculous matter in the liver.

Others have attempted to account for it on the supposition of a vicarious connection between the liver and the lungs. They tell us that, in consequence of the function of the lungs being impeded by tubercular deposits, and the various engorgements which necessarily attend them, the blood cannot part with all its carbon, and therefore it must seek some other channel for its elimination; and the liver is that medium. Hence the biliary secretion is increased, and, when it becomes morbidly so, it produces the flux in question.

Perhaps this explanation will do in the absence of a better one. To our view, it seems very probable that a morbid activity of the liver may be produced by an altered or abnormal condition of the blood, and thus cause a superabundance of its secretion. Accordingly we find that, as the tubercular cachexy becomes more fully developed, and the pulmonary organs more deeply involved in the disease, there appears to be a reciprocal action between them and the hepatic secretion, and, as the malady increases, the liver will take on increased morbid action; and, therefore, at the advanced stage of pulmonary tuberculosis, when the blood is very much deteriorated in

quality, we sometimes have more or less marked symptoms of hepatic derangement.

But sometimes the liver, instead of being morbidly active in this disease, will be torpid, and the biliary secretion, in a great measure, suppressed. This may be produced in several ways; it may occur from the want of nervous innervation, from an absence of the biliary principle in the blood, and from structural disease of the minute vessels which elaborate the bile. In the disease which we are contemplating, we think its suppression is generally owing to the absence of the biliary principle in the blood, and, under such circumstances, its suppression is of little moment. Some practitioners, therefore, greatly err in their treatment of cases of this kind when they give much mercury, with a view of stimulating the liver to greater activity, that its secretions may be more abundant. These have ceased for the want of food. Supply that and all will be right.

PART SECOND.

The chief lesion of the liver, however, under pulmonary tuberculosis, is *fatty degeneration*. This is present in about forty cases in one hundred. When we examine a liver of this kind, we find that it exhibits a pretty uniform and highly characteristic appearance. Its color is pale yellow, figured irregularly with brownish or deep-oranged spots. Internally, it is found to present an appearance somewhat corresponding to that of the exterior, excepting that the pale-yellow tissues are much more uniformly distributed throughout the entire substance of the organ than they are upon its surface. It is sometimes softer, and more readily crushed between the fingers than in health. But this is not always the case; in some instances it has been found much harder than in the normal state.

The presence of the fatty matter is manifested by the unctuous feel it communicates to the fingers, by the greasing of the knife with which it is divided, by the stain it imparts to bibulous paper, on which it is pressed, and the manner in which such paper burns, as well as by the exudation of oil, when a portion of its substance is exposed to a dry heat.

When a portion of fatty liver is examined by the microscope, the hepatic cells are found to be engorged with oil. Sometimes a quantity of yellow matter is also seen in the cell cavity, together with oil, but this is frequently absent. The nucleus disappears as in cells that have ful-

filled their work of secretion; but the envelope persists, and is sometimes thickened and studded. The microscope proves very conclusively that there are progressive changes in the gradual increase of the fatty particle. Thus some cells appear quite healthy; others deviate from health only in containing two or three shining, black-bordered oil particles; in others, these are increased, and a large part of the cell-cavity is filled with minute oil particles, or with one or more large oil-drops; and in others, the cluster of oil-drops have given place to a single drop. In this last case degeneration is complete.

When the liver has undergone this change, these fatty transformations are generally confined to the lobules, and are always most advanced there. Sometimes, however, it is found to commence in the centre of the lobules. The pale condition of the liver is supposed to depend on the enlargement of the cells, which are pressed close together, and thus constrict the capillaries and allow less blood to be confined in them. But it should be remembered that there is no obstruction to the flow of blood—such as we find in some other lesions of the liver; the soft state of the oil-laden parenchyma sufficiently accounts for this.

Various opinions have been entertained by pathological writers in relation to the cause of this condition of the liver. Some have supposed that it is produced by an undue quantity of oily matter in the blood, in proportion to the assimilative powers; others, as the consequence of hepatitis; while a third class consider it the result of chronic gastro-enteritis. The majority favor the first theory, and I am of the opinion that it is the true one. Phthisis consists pre-eminently in a want of assimilation, and as this lesion of the liver is rarely met with in any other affection, the conclusion is obvious.

"Very probably," says Vogel, "in all cases where fat is produced, not only the cytoplasm, but also the blood from which it is derived, is more than usually abundant in fat. We often, indeed, meet with fat occurring in fat globules and granules in many amorphous blastemata; the fat remains, while the rest of the blastema disappears, either by absorption or organization, and in this manner those pathological collections of fat are formed, which we find in a crystallized state."*

One of the most singular peculiarities con-

nected with this condition of the liver, is the fact that the bile is not materially altered from its healthy state. The following table, from Frerich's, is a very fair exhibit of the bile in health, and in fatty liver.

	Health.	Fatty liver.
Water, - - -	84.77	91.00
Solid constituents, -	15.03	9.00
Bilate of soda, - -	8.32	9.94
Mucous, protein compounds and salts, -	6.46	2.97
Fat, - - -	0.25	0.09

It will, therefore, be seen that there is not much difference in its chemical constituents; indeed, not enough to make its analysis a matter of importance in a practical point of view.

As far as my observation extends, I am not acquainted with any special symptoms which mark the existence of this state of the liver during life. There is no pain in the right hypochondrium, or soreness on pressure; the evacuations from the bowels generally look natural, and digestion is generally well performed. The only circumstance that might lead us to suspect this lesion, is the sensible enlargement of the liver; but this is by no means certain, for it is frequently enlarged from other causes.

PART THIRD.

Abscesses of the liver are sometimes an attendant of pulmonary tuberculosis. The records of pathology abound in instances of this kind. The following account of a case given by Dr. Mitchell, in the proceeding of the Pathological Society of Philadelphia, May 9, 1860, and reported in the January No. of the American *Journal of the Medical Sciences* for 1861, will serve as a good specimen of many that could be cited.

Mr. S. S., proof-reader and agent, set. thirty-seven, was born in Philadelphia, but had lived in the West many years. About two years ago, he had a cough of several months' duration, and once spit a little blood. In October, 1859, Mr. S., then residing in Nashville, was attacked with general feebleness and depression of spirits, with pain in the bones and frequent flashes of heat, the feelings of which are usually described as "a cold." During the fall and winter, he lost flesh and color. A trifling cough now pursued him, and now and then a return of the general symptoms above described.

"About the beginning of March, Mr. S. was suddenly seized with fever, and violent pain under the nape of the neck, and under the

* Vogel's *Pathological Anatomy*, page 172.

right shoulder-blade. After some domestic treatment, a physician was called in. He readily diagnosed the case as one of acute hepatitis, and treated it accordingly. Mr. S. was about in three weeks, but had a relapse owing to imprudence. In the second attack he had more pain in the region of the liver, and less in the back. He so far gained as to be able to travel to New York, which he reached about June 13. On his way from that place to Connecticut, his hacking cough, which had hitherto been of a trifling moment, increased suddenly, so that within twenty-four hours he expectorated at least three-fourths of a pint to a pint of pus daily.

"Mr. S. was astonished, but continued his journey, presuming that his new symptoms were due to bronchitis from sudden exposure. He went to the North, as I have said, still continuing to cast off from half a pint to a pint of pus daily. Returning southward, he reached Philadelphia on July 13, 1860. On July 23, Mr. S. sent for me. He told me his history, and especially insisted upon the fact of his constant exposure to the exhalations from a large drain and water-closet which were close to his office in Nashville.

"Mr. S. was spare, and a little sallow, but not jaundiced. He was well able to go up and down stairs without aid. His tongue was clean, his appetite excellent, his digestive powers unimpaired, and there neither was nor had been any vomiting. The cough was intermitting, being very violent, and attended with profuse expectoration of bloody pus for some hours, and then ceasing, only to be renewed again within a day, or even a less time.

"The abdomen was enlarged on the right side by the swollen liver, which extended below the umbilicus, and across the epigastric space. There was little or no rigidity of the rectus muscle, but, there was a painful spot at the upper line of the right iliac fossa. Above the liver dullness was continuous, with a flat-sounding region of the lung. This involved a third of the lung in front, and curved upward on the side and back, so as to reach the scapula spine. At the lower point of the shoulder-blade there were the usual indications of a cavity. Moist rales were heard only in the right chest at first, but, at a later period, were also audible in the other lung, though to a less amount. We could detect no evidence of tubercle, but from the history of other cases, we conjectured its existence."

The patient soon became exhausted, and died

on the 29th of August, 1860. The following is a description of the *post mortem* by Dr. Kane, who examined the body twenty-four hours after death :

"The body had been kept in ice; was perfectly rigid, and much emaciated; the anterior portion of the thorax was perfectly clear and resonant, under percussion, as low down as the superior margin of the sixth rib; from that point to nearly the level of the umbilicus, both sides emitted a dull flat sound on being percussed.

"The pericardium was perfectly healthy, and contained no more than the normal amount of fluid. The heart was of the usual size, and showed no evidence of valvular disease, but its muscular fibres were much softened, and firm white cloths were found in the auricles and ventricles of both sides, entangled in, and closely adherent to, the *cordæ tendines* and *columnæ carneæ*.

"The inferior lobe of the left lung was studded with miliary tubercles. It was much congested, and of a deep red color. The upper lobe, though congested, was less so than the lower, and contained no tubercles. The upper lobe of the right lung contained several small cretified tubercles, but was otherwise healthy. The lower lobe was completely riddled by an anfractuous vomica; what remained of its substance was much softened, and of a dirty brown color. The pleura around this portion was much thickened, and immediately above, its two surfaces were closely adherent, thus forming a circumscribed empyema connected with an abscess of the lung.

"The liver was almost double its normal size, its left lobe extending so far into the left hypochondriac region as to press strongly against the spleen. A rough measurement made before removing the organ from the abdomen, gave ten inches as the vertical diameter of the right lobe, nine inches as that of the left, and eleven inches as the transverse diameter of the entire viscus at its central portion. The upper left angle of the left lobe was the site of an abscess, about as large as an ordinary hen's egg, which bulged outward so as to press strongly against the diaphragm, and was filled with a thick, homogeneous yellow pus.

"The right lobe was firmly adherent to the right wall of the abdomen, and to the diaphragm, but especially to the right abdominal wall. An abscess as large as a Sicily orange, occupied the upper portion of the lobe. It was

filled with a thick whitish pus, and did not communicate either with the abscesses in the liver or the lungs. A third abscess, nearly as large as a hen's egg, existed in the lower portion of the right lobe of the liver. This abscess communicated, by a large opening in its posterior wall, with the gall-bladder, which was firmly agglutinated to the liver, and was distended with thick greenish pus. The walls of the gall-bladder were much thickened. The cystic duct was entirely occluded by the pressure of an enlarged gland. The hepatic duct was unimpeded, as was also the common duct, which was traced to its opening in the duodenum.

"We had considerable difficulty in detecting the opening of the communication between the liver and the lungs, which was not, as might have been expected, above, for one of the large abscesses pressing against the cavity of the diaphragm, but by a small canalicular opening connected the abscesses in the lower portion of the right lobe, which pierced the liver low down at about the junction of its right lateral and posterior surface, and allowed the pus to escape. This, being circumscribed by lymph, had burrowed upward, and perforated the diaphragm at its attachment to the ribs anteriorly, thus opening into the circumscribed empyema in connection with the anterior surface of the right lung. There was considerable general peritonitis, especially in the ileo-cæcal region; but the stomach and intestines appeared healthy. The spleen was normal. The kidneys were enlarged and pale. The brain was not examined."

Dr. Morehouse, a member of the Society, in remarking upon this case, said "that it was a good example of hepatic disease occurring in association with tubercular deposit in the lungs. He thought such associations were not accidental, but illustrated the relationship between suppurative inflammation of the liver and those systemic conditions favoring degeneration of tissues, and more prominently that denominated tubercle. Eighteen months ago he had exhibited to the Society a large abscess of the liver developed in a tubercular patient; since then he had learned the history of, and observed a number of cases with especial reference to this point, and, from their evidence, was led to believe that those cases of hepatic abscesses, coming on insidiously in persons from forty to sixty years of age, are, in the majority of cases, associated with the tubercular diathesis."

This opinion was not concurred in by Dr. Gross. He was not inclined to the belief that there is any special connection existing between the tubercular diathesis and suppurative hepatitis. He had come to this conclusion from having seen quite a number of cases of this disease among the boatmen on some of the Western rivers, who had entirely recovered without giving the least evidence of tubercles in the lungs. Suppurative hepatitis may, and frequently does, exist as an independent disorder, and in some countries causes a larger mortality among the people. This is fearfully true of some portions of India, where hepatic diseases are very common. But this does not militate against the fact that there is a reciprocal action between the lungs and the liver, and that it is of such an intimate nature, especially in pulmonary tuberculosis, that it may lead to hepatic abscesses.

Error of Diagnosis in a case of Pregnancy.

By JOHN SWINBURNE, M.D.,
OF ALBANY, N. Y.

Mrs. J. E., aged twenty-eight years, of rather delicate health naturally, has been married ten months. Three months after marriage she ceased menstruating, but otherwise presented none of the usual indications of pregnancy, nor was any change observable in her general health.

At seven months, or thereabouts, her abdomen began enlarging, and at times bloating, which would partially disappear. The physician in charge, thinking it a case of suppressed menstruation, passed one of Simpson's sounds, repeating the operation at each menstrual period for three successive months—in the meantime prescribing infusion of cotton-root, ergot, and various other uterine stimulants, such as iron, myrrh, aloes, etc.

This treatment was continued until about the seventh month of suppression, when she visited this city in company with her husband, (a dentist by profession,) who gave me the following additional history of the case, for a portion of which he was indebted to the physician in charge.

The womb was patulous, retroverted, with the os open; the vagina tender, and studded with excrescences; great irritability of the meatus urinarius, with frequent desire to micturate; obstinate constipation, considerable emaciation, appetite deficient, and much thirst.

Upon visiting her and making a careful examination, I found the following conditions existing:

1. Large, healthy mammary glands, with the nipples prominent and turgid. The areolæ were large and dark, almost black, and studded with follicles, prominent, distended, and moist with fluid.

2. Abdomen large, with a circumscribed tumor occupying its lower portion. Auscultation revealed here distinct fluctuation and elasticity, as of fluid; also, uterine *soufflé*, and distinct pulsation of the foetal heart at the rate of 130 per minute.

3. Examination per vaginam revealed the excrescences of the vagina, before spoken of, to be nothing more than enlarged glands or mucous follicles, principally about the orifice of the vagina, meatus, etc.

The retroversion spoken of was only a semblance, from the uterus having arisen out of the pelvis. The irritability of the parts was only a myth. The frequent micturition was the result of pressure of the uterus upon the bladder.

The emaciation and loss of appetite were the result of constant anxiety, increased by the obstinate constipation.

The head of the child presented low down in the superior strait, and *ballottement* gave unmistakable evidence of foetal existence.

In this instance, notwithstanding the good medical character sustained by the physician in question, he was so far mistaken in his diagnosis as to occasion great mental anxiety to his patient, and, as for his practice, the only and great wonder is, that a miscarriage was not inevitably produced.

As to the husband's diagnosis, this would lead us still further astray, notwithstanding his boast that "he was a pretty good doctor," as will be evident from the above report after a more careful examination.

Moral.—1. Do not take the opinions of any one out of the profession, nor of every person in it, or you will be constantly deceived.

2. Do not interfere with a doubtful case of pregnancy, especially where the patient's health is not impaired by the cessation of menstruation.

—o—
M. Du Chaillou, the African traveler, at a recent meeting of the Ethnological Society of London, resented some offensive remarks of Mr. Malone, by an assault on the speaker with his fists.

EDITORIAL DEPARTMENT.

PERISCOPE.

Weekly Summary of American Medical Journalism.

By O. C. GIBBS, M.D.

In the absence of material for our *Summary* this week, we shall give an analysis and *Summary* of the *Transactions of the Medical Society of the State of New York* for 1860. This will be followed by a similar paper, gleaned from the *Transactions* of the several States, Ohio, Illinois, Indiana, Connecticut, and such others as will be kind enough to send their *Transactions* to us. They will not follow in regular order, but will be worked in when our journal receipts are insufficient, or deficient in interesting papers to make up our weekly article. In the *State Medical Society Transactions*, many papers are brought out of great interest, but the benefits derived from their perusal are confined to the respective States in which they appear.

We are determined that our *Summary* shall give a faithful rendering of all papers of American authorists of real practical interest, to be found elsewhere than in books. *State Society Transactions* must supply the place, for the present, of the Southern journals that now fail to reach us.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR 1860.

This volume of the *State Medical Society Transactions* is smaller than some of the previous volumes; and yet, in a practical and scientific point of view, it is not without its interest.

The opening paper is the *Inaugural Address* of the President, upon which we do not propose to remark.

The second paper is entitled "*Notes upon New Remedies*," by Edward R. Squibb, M. D., of New York. The following remedies are remarked upon: *Acidum Chromicum*, *Acidum Sulphurosum*, *Argenti Nitras Fusus*, *Bismuth Subcarbonas*, *Liquor Ferri Perchloridi*, *Liquor Ferri Persulphatis*, *Ferri Pyrophosphas*, *Syrupus Ferri Pyrophosphatis*, *Liquor Opii Compositus*, *Potassa Permanganas*, and *Soda Chloras*. We shall quote only a few of the more important practical remarks contained in this paper. Remarking upon *Argenti Nitras Fusus*, he says, that it is greatly adulterated, and that he has discovered a test of purity, which, if applied, will cause to be rejected four-fifths of all now found in the mar-

ket. We quote the test: "A small fragment of nitrate of silver, say four times the size of a pin's head, crushed to powder with a knife-blade, or pencil head, upon a piece of soft paper, three or four inches square, the powder spread out over the paper, and the paper and powder then rolled up into a small, compact, match-like roll, set on fire and burned, leaves a tasteless residue of pure silver, if the nitrate be pure. But if the nitrate contains even one per cent. of any alkaline impurity, the residue of the burning, instead of being tasteless, will have the base of the adulterating salt. The little match burns rapidly with deflagration, and, provided the quantity of nitrate taken be not too great for the size of the paper, the carbon of the paper will, in burning, reduce all the silver to the metallic state, and will leave only the base of the adulterating salt to give taste to the residue."

Of the *Bismuthi subcarbonas* he speaks highly. The more common preparation, the subnitrate, he says, is often quite impure, containing arsenic, &c. He says, "at best, however, this preparation is liable to produce mechanical irritation and oppression of the stomach, constipation, and, when long continued, a train of symptoms approaching those of scurvy. The *subcarbonate* is said to produce no such ill effects. It is soluble in the gastric secretion, with the additional valuable property of being antacid. It excites no repugnance by roughness or tenacity upon the palate, and its action is uniform, prompt, and efficacious. During the first few days it is sedative, and subsequently tonic. It is regarded as being peculiarly adapted to secondary atonic gastralgias; to laborious digestion, particularly when accompanied by acid or putrescent eructations, with tendency to vomiting and diarrhoea; to the vomiting of children, whether caused by dentition or indigestion; and to the diarrhoea of feeble children. Under its use the digestion improves rapidly, the tongue assumes its natural form and color, the appetite improves, and the skin loses its shrivelled appearance, and sallow color. In short, judging from its chemical character and uniformity, as well as from the statements made respecting its therapeutic effects, it appears well adapted to replace the subnitrate altogether."

Of the *liquor ferri persulphatis*, he says, "when the solution is brought in contact with any form of fibrin or albumen, it instantaneously forms a firm and resisting clot, which is perfectly insoluble, and which becomes harder, and swells for sometime after. In consequence of this singular property, possessed in so high a degree, it is undoubtedly the most prompt and efficient haemostatic known, whilst its value is much increased by its freedom from irritating or caustic effects. These peculiar properties appear to adapt it admirably to the purpose of injecting aneurisms, varices, and erectile tumors, whilst its astringent and corrugating

power adapts it equally well to the condensation of spongy tissues and bleeding surfaces."

Remarking upon *liquor opii compositus*, he says, that the very best specimens of opium found in the market, vary in the amount of morphia which they contain, from 5.15 to 11.15 per cent., and the results of the administration of this article must vary accordingly. The preparation just alluded to, devised and manufactured by Dr. Squibb, is designed to obviate this variableness, as each fluid ounce, by absolute assay, contains four grains of morphia. Hoffman's anodyne enters into the combination, with the design that the opium be better borne. We have, no doubt, that the *liquor opii compositus* is a valuable acquisition to the *materia medica*, and will probably supersede "Battley's sedative," and "McMunn's elixir;" but when manufactured by knaves it will always contain too little opium and lose cast and confidence.

Dr. Squibb concludes his paper with a few remarks upon sugar coated pills, dragees, granules, etc., against which he enters his protest. If pharmacists will be honest, and put up in this manner only the best and purest of remedies, we do not see the force of the objection; for, certainly the tastes of the unfortunate people, whose misfortune it is to have to take medicine, are not to be wholly disregarded.

Paper third in the Transactions is devoted to the examination of *city* milk, and its influences upon health, particularly of children.

This is an able paper of 36 pages, illustrated with seven full page lithographs of healthy and a variety of unhealthy milk. The investigations and the report itself are mostly the result of the industry and devotion of Dr. S. R. Percy. To give a synopsis of this paper would be interesting, but our space will permit only of a condensed statement of results—they are as follows:

1st. "The housing of milch cows in great numbers within the narrow space allotted to them in the distillery stables of this city, of Brooklyn, and Williamsburgh, is of itself sufficient to vitiate their health, and render their milk unwholesome. But the actual condition of the stables, these deleterious effects are materially augmented by want of cleanliness, insufficient light, and a vitiated atmosphere, not to speak of the restraint and want of exercise to which the cows are subjected, nor of the unwholesome food supplied to them."

2d. The number of cows at present kept at the few distillery stables which still exist in this city, is of no great account, as in all they probably do not exceed six hundred. The business of supplying milk for this city from swill-fed cows, is now mostly conducted at Williamsburgh, or Eastern Brooklyn, where the distillery stables are numerous, extensive,

crowded, wretchedly constructed, and filthy to the last degree. Many of the animals confined in these stables were found in a sickly condition, and on careful inquiry at one of the largest of these stables, we ascertained that the annual mortality among the cows confined there was not less than ten per cent.

3d. Such of the cows at these establishments as remain comparatively healthy, are retained without once leaving the stable, as long as they continue to yield a sufficiency of milk, usually for about a year; after which they are fattened for the market, slaughtered, and sold as beef. The beef produced from these animals is unsavory, and easily recognized by its offensive odor; and this odor is not dissipated even by the process of cooking. The fibre of this beef is flaccid, and its cellular tissue is found infiltrated with watery fluids instead of solid fat. Hence, in the process of cooking, it shrivels, and presents other appearances by which the practiced eye can readily distinguish it from the beef of healthy grass-fed cattle.

4th. The swill which constituted the principal food of the cows at these stables, and which is but the refuse material left after the process of distillation, is, even at the period of its withdrawal from the alembic, and long before it is distributed to the feeding-troughs, found to be highly charged with acetic acid. Its acidulous quality, intermixed with a sort of saccharine and farinaceous flavor, is not very disagreeable to the taste; but, taken into the stomach, the swill operates briskly as a purgative, disturbing the bowels and augmenting the urinary secretions. These effects were sensibly experienced, from the use of it, by two of the members of the committee, and from the continual purging of the cattle, and the excessive amount of urinary secretion, we are led to the belief that its effect upon the cows is not materially different from its effect upon the human system.

5th. The milk of these cows does not exhibit the characteristics of wholesome milk. It presents almost invariably an acid reaction, whilst the milk from healthy grass-fed cows is, when first drawn, always alkaline. The acid quality of this distillery milk, it is true, is not perceptible to the taste while the milk is fresh, but it is always recognizable by chemical tests. And this feature is of itself sufficient to condemn the milk in question as an article of food, especially for young children. This remark applies to the milk procured from such of the cows in those stables as appear to be in good health. It must apply with still greater force against the milk procured from such of them as are actually diseased. And it is ascertained that the milk from the diseased cows is mixed with that from the others, and distributed to the consumers.

6th. The cases collected under the direction of the committee, by Dr. Percy, demonstrate the fact, independent of any chemical examination or any *a priori* reasoning, that the milk pro-

cured from these swill-fed animals is injurious to those who use it. The difficulty of authenticating cases of this sort, and of establishing the relation of cause and effect between the milk and the diseases which are attributed to the use of it, will be sufficiently understood by every medical observer; and, but for the unwillingness of the committee to adduce any cases in which this connection could not be clearly established, numerous other similar instances would have been added to those which Dr. Percy has reported. One instance, within the knowledge of the committee, serves to show that the housing of cows in private stables, even where these cows are fed on wholesome food, and kept carefully under the eye of those who use the milk in their own families, so long as the cows are restricted to the stable and deprived of their appropriate exercise in the open air, deteriorates the quality of the milk to such a degree that it cannot, in all cases, be used with safety as food for young children. In view of these disclosures, it is evident that the traffic in the milk of swill-fed cows is one which is detrimental to the health of the community, and that for this reason it should be discontinued."

Milk, from various sources, was examined chemically and microscopically, and its influence upon the health of young children exclusively fed upon it, carefully noted. We have not space for further particulars. We will conclude our reference to this important paper by alluding to the properties of human milk, under circumstances similar to the stall-fed cow. Dr. Percy says, "I have analyzed the milk of several women living in cellars and in damp, dark apartments. With all these women I have found the milk strongly acid, the saline matters and the casein much increased, and the butter and sugar decreased. In two of these cases, a few days of better atmosphere, more light and good food, rendered the milk alkaline and more normal in its relative proportions.

With the facts before us, which this paper presents, it is not surprising that the rates of mortality should be great among the children of the poor in the cities, occupying dark and damp cellars. The children of the rich, too, are often not more fortunate—prohibited by the dictates of fashion and pride from the enjoyment of the healthy and natural nourishment which it should be the pleasure of every mother to impart, and confined to the unhealthy milk of swill-fed and distillery-stabled cows, the mortality among them is very great.

Without a change in the dietetic arrangement of young children, cities would soon be depopulated could they not make replenishing draughts from the country. Fortunate is it for any child to be born where the air of heaven is unadulterated—where mothers are not too proud to nurse their offspring—where cows give healthy milk, and the adulterations of milk-venders are unknown!

Article fourth of the Transactions is upon *hypodermic medication*, and by Dr. James M. Sturdevant. We quote only a few concluding remarks: "From the above facts and cases, I am prepared to make the following deductions: 1st. The hypodermic method is *far preferable* to the method of Dr. Wood, for two reasons: *first*, the operation gives less pain; *second*, it is not liable to be followed by abscesses. It is preferable to stomachic doses in severe neuralgia, for the following reasons: *first*, it produces a more decided and speedy relief from pain; *second*, it is followed, in every instance, by sound and refreshing sleep; *third*, it is less liable to derange the stomach and bowels; *fourth*, it does not produce those cerebral disturbances, as vertigo, headache, faintness and nausea; *fifth*, when the pain returns, it is modified and milder in its character; *sixth*, it requires a smaller dose of medicine."

Article fifth is a paper upon the *General Pathology of the Skin, and its Treatment by means of warmth and moisture*. By Dr. Benjamin Lee. This paper is mostly devoted to the advocacy of *water dressings* in wounds, burns, inflammations, etc. Nothing new is elicited, and we shall not occupy space with quotations.

Article sixth consists of a report of a *Fracture of the Neck of the Femur within the capsule*. The patient died fourteen weeks and three days after the accident. A post-mortem "revealed a fracture of the neck of the femur, wholly within the capsule, which was restored by bony union, and sufficiently strong to almost support the weight of the body. The coaptation of the extremities of the fracture was nearly perfect, and had the patient survived to have used the limb, its length would have been nearly perfect."

Article seventh is by Dr. John Ball, on the *Extrication of the Eye*. He figures and describes a new instrument which he calls the *double-hooked eye forceps*. The manner of extricating the eye by its aid is also described, but our space will not justify its reproduction here.

Article eighth is the report of a case of *exophthalmia*, reported by Dr. T. H. Squire.

Article ninth is a report of a *Gun-shot wound within the Cavity of the Thorax*, reported by Dr. Sylvester D. Willard. The wound was from a pistol-ball aimed at the heart, but missing it, it lodged in the lung. The patient recovered. Dr. Willard thinks success was owing to a careful evacuation of the thoracic cavity of the accumulated fluid. He says, "at each dressing, I endeavored to empty the thoracic cavity of the fluid that had accumulated below the level of the orifice. In order to accomplish this, the patient inclined forward to a position almost horizontal, when, by an effort of coughing, the fluid would be ejected." A silver catheter was also introduced, and the fluid completely evacuated. Guthrie, speaking of

wounds of the chest, says, "all the persons I have seen die from small balls, have died with the cavity more or less full of fluid." We think it is quite probable that Dr. Willard's precaution in regard to the fluids in the chest, turned the scales in the patient's favor.

In article tenth Dr. N. C. Husted reports a case of gunshot wound of the chest, in which he supposes the lung was wounded, which also eventuated in recovery.

Article eleventh is by Dr. Hiram Corliss, and reports the case of a tumor, having its origin in the uterus, the solid parts of which weighed 56 lbs.

Article twelfth is by Dr. Charles Barrows, and contains the report of a case of *strangulated inguinal hernia*, which was trusted entirely to nature, and yet the patient recovered. Sloughing took place on the eighth day. For a time the feces were discharged through the artificial opening, but in time the contents of the bowels took their natural course.

In article thirteenth, Dr. A. Goodman reports a case of *quadruple births*. "There was but one placenta, which was oblong in shape. Three cords were inserted in it."

Articles from the fourteenth to the twenty-third inclusive, are not of a character to find summary notice in our pages. Article twenty-fourth is upon *Pharmaceutical Preparations*. Fluid extracts are first considered. Tilden & Co., and Thayer & Co., furnish the most reliable articles of this preparation. The opinions of the committee seem to slightly preponderate in favor of the preparations of Thayer & Co. We have used both, and must confess we see but little difference—both are reliable when fresh and procured direct from the manufacturers. The committee regard them as convenient and reliable preparations. Solid extracts are secondly considered, and of those manufactured in this country, preference is given to those of Tilden & Co. In the third place *active principles* are considered, but no important facts are brought out, or decided opinions expressed. In the fourth place, *sugar coated pills*, granules, etc., are considered. In regard to them it is agreed that, while taste is concealed, the action of the medicine is not interfered with.

Upon the subject of *Pharmaceutical preparations*, Dr. Samuel R. Percy presents a minority report; he regards *fluid extracts*, "at the best, uncertain, and indefinite compounds." Fluid extract of ipecac. he says, he has given in three drachm doses to a child, without effect, and has taken thirty drops of veratrum viride entirely without influence. Upon this point we feel it a duty to oppose our experience. We have used both Thayer's & Co.'s and Tilden & Co.'s preparations, and ordinarily we have found one teaspoonful of fluid ext. of ipecac. to act briskly as an emetic, even in the case of adults, and five

drops of veratrum viride, when frequently repeated, has always effected the pulse *decidedly*, by the time three or four doses had been taken. We do not propose to enter this controversy, but simply state the conclusions of different observers. In regard to sugar coated pills and granules, we would remark that those prepared by Bullock & Crenshaw, of Philadelphia, will compare favorably with any in the market; containing the same doses, they are smaller than any in the market.

The remaining papers in the Transactions are principally biographical, and are not adapted to our pages.

In the *Proceedings of the Society*, the subject of *anæsthetics* is considered, and the society is unanimous in the opinion that Dr. Wells was the first man in this country, and, so far as we know, in any other, who ever demonstrated, unequivocally, the fact that the human system could be rendered insensible to pain during surgical operations, by a process of inhalation."

EPIZÖOTIC DISEASE AMONG SWINE.

DR. EDWIN M. SNOW, of Providence, R. I., sends us his address read before the Rhode Island Medical Society, at the annual meeting, June 19, 1861, upon the "Epizoöty, lately prevalent among Swine," from which we make a few extracts. The disease referred to, he says, which, for want of a better name, has been improperly called "Hog Cholera," has prevailed in this vicinity, more particularly among large herds of swine, during each of the last five winters; but has usually terminated with the end of cold weather. The present season it has prevailed more extensively, and did not cease with the approach of spring. During the last five months it has destroyed more than 300 hogs in the towns of Providence, Cranston, and Johnston, and its victims elsewhere are numbered by hundreds of thousands. The symptoms of the disease are thus concisely given:

"The hog appears weak, his head droops, and frequently, in a few hours after these symptoms, diarrhoea commences, which has caused the disease to receive the name of 'Hog Cholera.' Frequently there is vomiting; sometimes, from the bloody discharges, the disease resembles dysentery. In other cases the lungs are principally affected, and there is difficult breathing and cough. Sometimes there is inflammation of the throat, and the tongue is also very much swollen and inflamed; sometimes there is bleeding from the nose, and the nose is swollen. In many the disease appeared to be principally confined to the surface, and sometimes the ear and side of the head were swollen and inflamed; sometimes one or both legs

were inflamed and swollen, and the inflammation extended along the sides or belly, of a deep red color, almost precisely similar to phlegmonous erysipelas. Some had large sores on their legs, resembling carbuncles; others had gangrenous sores on their sides or flanks, from three to six inches in diameter; some appeared delirious, and others blind. These symptoms were combined in almost every possible variety; death took place in from one to five days. Out of a pen containing 100 hogs fed on slops, 33 generally died, and it required about eight weeks for the remainder to recover from the disease."

In regard to the nomenclature of the disease, Dr. Snow says:

"I know of no name which would convey to medical men, and certainly not to others, a precise idea of the nature of the disease. Yet, it seems to me, that the facts as already given cannot fail to suggest to those familiar with diseases, some idea of the character of the disease under consideration.

"As we read of enlarged glands, ulcerated intestines, carbuncular swellings, inflamed and hepatized lungs, purpuric spots, and other similar symptoms as found in animals in this disease; the mind of the physician at once vertebrates to pyæmia, phlegmonous erysipelas, typhus fever, and other like forms of asthenic disease in the human system. Here, I am satisfied, we have a clue to the true nature of this disease. It is a disease primarily of the blood, producing a depraved state of the system generally, a genuine typhus disease; call it *typhus fever*, if you choose, though this name is not at all satisfactory. The diarrhoea, which often occurs in typhoid fever, is not a 'cholera,' neither is the diarrhoea of this disease in hogs, a 'hog cholera,' but it probably arises from the same cause as the diarrhoea in typhoid fever. The disease is in the system generally: the diarrhoea is a local complication or effect of the general disease. Neither is this disease a pleura-pneumonia, properly, though there is pleurisy and pneumonia existing in perhaps a majority of cases. It is a general disease of the system; the pleura-pneumonia is only a local complication or effect of the general disease. It is well known that cases of pyæmia, as well as of low typhus and typhoid fever, in human subjects, are often complicated with pneumonia. So in this disease, the pleuro-pneumonia, the diarrhoea, the ulcerations in the large intestines, the purpuric spots, the ulcers about the mouth, feet, and elsewhere, are only local effects of the general disease of the system."

As to the treatment, none is of any value whatever. If treatment is desired, the indications are to support the system by stimulants and tonics, with pure air and pure cold water, and nourishing and healthy food. There is an abundance of "certain cures" for the disease, but all are worthless. In conclusion he says:

"I have already had occasion to know that all persons are not governed by the Christian rule of doing as they would be done by in this respect; and that some persons will send pork to the city markets which they would not eat themselves.

"I have good reason to believe that on the appearance of the first symptom of the disease, many hogs are killed, to save their value to their owners, and that the pork-eating inhabitants of our cities are, from time to time, solving the problem whether the flesh of diseased hogs is injurious to health."

OPIUM IN PUERPERAL CONVULSIONS.

Mr. James Duncan says, in the *Medical Times and Gazette*: "I have used opium frequently since 1856, and can vouch for its extraordinary power in subduing them. I give it in large doses, or rather in one single large dose of from gtt. lxx. to gtt. xc. of the tincture. In no case has it failed to check the fits; in fact, from the moment it was given, not a single fit supervened in any of the cases. I prefer giving it alone by the mouth. I have given it both when the pupils were contracted and dilated. It acts as a powerful sedative on the heart's action, the pulse falling both in strength and frequency under its power, the patient hitherto so restless with loud stertorous breathing, generally falls into a natural sleep in which the breathing becomes quite calm and easy, from which she awakes generally in about eighteen or twenty hours, quite well.

"In advocating the claims of opium in these cases, I would by no means undervalue the proper use of the other means; but I can safely affirm that even after all other means have been tried and failed, opium may succeed. I attribute its non-popularity in these cases solely to the fact that formerly, when it was given at all, it was in small repeated doses, the effects of which were a keeping up of the excitement instead of subduing it. The same error, I am afraid, was formerly committed in the treatment of delirium tremens, where digitalis in large and heroic doses is now strenuously advocated, but where opium in equally large doses would be as powerful and effective."

ARSENIC IN INTERMITTENTS.

Mr. John Brake, Assistant Surgeon in the Second Sikh Cavalry, in India, has had very extensive experience in the use of arsenic in the treatment of intermittent fevers. In a communication to the *Medical Times and Gazette*, he says:—"My Indian experience has been gained chiefly in Lahore, Delhi, Cawnpore, Bundelcund

jungles, and Saugor—all but the last named place notorious for miasmatic diseases. At Lahore, in 1856, more than 600 out of 1000 men passed through my hospital in one month.

"My patients have usually been numerous and mixed; that is to say, both European and native, the latter being Sikh and Punjaubees, meat-eaters and spirit drinkers, with constitutions greatly resembling those of Europeans.

"In all cases my experience of the effects of arsenic in small doses has been the same, and I employ it for myself and my own family. In quotidian fevers it does not fail to effect a cure once in fifty times, the usual time of taking it being five or six days, as I always continue its exhibition at least two days after the last paroxysm, and the cases very seldom relapse. In tertian and quotidian fevers the treatment by arsenic alone is more protracted, and though these may be cured by it, I usually combine with it quinine in doses of two grains three times a day, until one or two paroxysms have been warded off, when the arsenic alone is continued for a few days.

"Perceptible enlargement of the spleen scarcely ever occurs during the treatment; but, as might be expected, bilious derangement is a common accompaniment of intermittent fever, and I never attempt to cure a case without one or perhaps two mild mercurial aperient doses being given at the commencement of the treatment.

"I subjoin the statistics of one regiment of 550 men, for the year 1860, stationed at Sangor, considered a healthy cantonment: The admissions were 753—including quotidian fever, 293; tertian fever, 66; quartan fever, 14; total, 373. The deaths were two, viz., one from cancer, one from jungle fever (brought in moribund)."

ARSENIC IN COMMON LIFE.

In the *Berkshire Medical Journal*, for May, Prof. C. H. Porter, of Albany, has a very interesting article upon the above subject, which should be read, not only by physicians but by the public generally. In *wall paper*, *window shades*, *paper boxes*, *cards*, *candies*, etc., he finds arsenic, and that too in a condition to find its way into the system. We shall try to give a few of the more important facts and ideas brought out. The author says, "During the last two months a large number of examinations have been made in my laboratory of green wall papers obtained from various dealers in this city. Five-sixths of those examined were colored with the dangerous compounds spoken of (Scheele's-green, arsenite of copper, and Schweinfurth-green, acetarsenate of copper.) The quantity present varied greatly in the different specimens examined. . . . The average of all the papers examined gave thirty grains of arsenious acid

to the square foot." An ordinary sized room would thus contain some two or three pounds of arsenous acid?

But it may be inquired how this arsenic can find its way into the system? In coarse papers—and it is in such that arsenic is much the most abundant—the colors are loosely adherent to the surface of the paper as every one knows. Dr. Porter says, "In dusting apartments whose walls are covered with these papers, and in other ways, when the walls are touched, as by the contact of furniture, or of other objects, minute particles of these poisonous compounds are detached, which, floating in the atmosphere, are thus continually inhaled, and illness arises. Especially are ill effects likely to be experienced where the pigment is but loosely attached to the paper."

We cannot follow the author through the various departments of his subject. In conclusion he adds: "That arsenical compounds are extensively used for coloring papers, textile fabrics, etc., no one can doubt, and that many cases of serious illness and even death have followed their use, is no longer a question."

In selecting wall paper, much green should be avoided, also in inside painting green, especially Scheele's green, should never be used. Dr. Porter, remarking upon this point, says, "It may be noted as worthy of consideration, that if apartments thus painted were properly varnished, the danger would be to a great extent removed. The same remark applies to papers thus painted; varnishing would lessen the danger, and without injury to the color, which, indeed, it would rather heighten."

POISONOUS EFFECTS OF A LARGE DOSE OF ESSENCE OF CHECKERBERRY.

Before the *Boston Society for Medical Improvement*, as per report in the *Boston Medical and Surgical Journal*, for August 22d, Dr. W. E. Townsend "said he had been called at a late hour in the night to a woman who had been for sometime in an insensible condition after drinking six ounces of essence of *checkerberries*. She was apparently in a sound sleep, but could not be roused. There was no sterter. The pupils were contracted. After being made to inhale the vapor of ammonia, she roused sufficiently to take an emetic, which, however, did not operate, and she immediately relapsed into unconsciousness. After two hours a powerful galvanic battery was applied, from the effect of which she vomited, but such was her condition that she was nearly strangled by the contents of the stomach lodging in the fauces. She then appeared to be sinking, but in the course of an hour showed signs of reanimation, and gradually recovered, having been insensible for ten hours." Dr. Hooker alluded to a similar case that occurred under his observation.

TIN SPLINTS.

Prof. Cooper, in the *San Francisco Medical Press*, says: For a long time we have been in the habit of using *tin* instead of wood for fracture splints. This material is so far superior to all others used for the purpose, that we are greatly surprised that manufacturers of patent splints have never adopted it instead of wood. It is lighter, stronger, far cheaper, and can be moulded into any desirable shape by the surgeon. Thus, as is often the case in compound fractures, it being desirable to have some particular part exposed, the surgeon may go to any tinner, and procure, at a trifling expense, the splints, with the necessary openings, which cannot be the case with the use of wood. Any tinner can easily make the splints, but few workmen can make them properly shaped of wood. We would particularly commend them to young practitioners, who may not be able to equip themselves with the more costly appliances, in the commencement of their practical careers."

REMEDY FOR OBESITY.

The use of the leaves and stems of *Fucus vesiculosus*, or common sea-weeds, in decoction, powders, or pills, as a cure of excessive obesity, is strongly advocated by Dr. Duchesne Dupare, in *Champonnier's Journal of Med. and Surg.*

THE RICHES OF A DROUGHT.

Several experiments tried by Professor Higgins go to show the action of drought in bringing mineral matters from a depth to the surface of the soil. In one case he placed a solution of chloride of barium in a glass cylinder, and then filled it with dry soil. After long exposure to the rays of the sun, the surface of the soil was tested with sulphuric acid, and gave a copious precipitate of sulphate of baryta. Chloride of lime, sulphate of soda and carbonate of potash, were experimented upon in like manner, and upon the application of proper tests the surface of the soil showed their presence in large quantities, drawn up by the rising water from underneath, as in the case of drought. The parched earth—all vegetation dwarfed and withered by the heat—seems suffering a curse; but is only an affliction for the present—"a blessing in disguise" for the future. "The early and latter rains" may produce at once abundant crops, but dry weather is needed to bring to the surface from the depths of the earth, where else it would be forever unemployed, food for the future harvests. It is Nature's ordinance for keeping up the fecundity of the cultivated soil.

THE MEDICAL AND SURGICAL REPORTER.

S. W. BUTLER, M. D. } Editors and Prop's.
R. J. LEVIS, M. D. }
L. C. Butler, M. D., Assistant Editor.

PHILADELPHIA, SATURDAY, AUGUST 31, 1861.

MR. FERGUSSON HOLDING PROFESSIONAL INTERCOURSE WITH HOMOEOPATHS.

A letter has been published by Mr. Fergusson in reference to the charges made against him of habitually entering into professional intercourse with Homœopaths. He says:

"The fault of which I was accused three years ago, was that I had travelled in company with a Homœopath to relieve a gentleman of retention of urine, when the regular surgeon in attendance had failed; and I was further accused of holding consultations with Homœopaths. The former charge I admitted, and the latter I distinctly denied. In addition I stated that 'I had no faith in Homœopathy,' and that 'I gave no encouragement to Homœopaths to consult me.' I added further that I never refused my surgical services in any important case where they might be required, and would hold my conduct unjustifiable if any evil or fatal result ensued from negligence or refusal on my part. To all these views I hold as strongly now as I did at the time in question. I still do not consult with Homœopaths; I still have no faith in Homœopathy, and I still give no encouragement to Homœopaths to consult me. I never intended, and do not wish now, to have or leave room for any quibble on these points. I have been told that to meet a Homœopath in any way in a case, is to consult with him, and that, therefore, my denial is worthless; that such meeting amounts to a consultation. With those who take this view I at once plead guilty. I am occasionally consulted by Homœopaths (as I know other surgeons are), and, hearing the history of the case in clearer terms than from the patient or a friend, I give my surgical opinion; with this the interview ends. From first to last there is not a word about Homœopathy introduced; but should there be, I invariably let the patient know that I have no faith in such doctrines, and that I am giving my opinion solely as a surgeon. I am not aware that I have met with any man who has stronger views, prepossessions, or objections against Homœopathy than I have. No Homœ-

opath can say that I ever conceded to him one tittle on Homœopathic principles; and as a public teacher of thirty-five years' standing, I appeal to my numerous pupils with the utmost confidence that they will free me from the imputation of having ever encouraged such doctrines."

Mr. Fergusson has, in this acknowledgement, admitted what would, in this country, have made him clearly amenable to an ethical prosecution and condemnation. We assert that, to meet a Homœopath in any professional relation in which, before a patient or his friends, we acknowledge him to be a physician, and accordingly treat him with the professional courtesy due to a physician, is equivalent to a consultation with him. Such conduct is at least giving "aid and comfort to the enemy," quackery, and as such is treason against the honorable profession of medicine.

Mr. Fergusson admits that he "is occasionally consulted by Homœopaths, and, hearing their history of the case in clearer terms than from the patient or a friend, gives a surgical opinion; with this the interview ends." He thus admits that he is "occasionally consulted by Homœopaths," and yet in the first sentence of his letter denies "holding consultations with Homœopaths!" Here is a distinction without really any ethical difference.

His conduct tends to sustain the quack in the confidence of the patient, at a time when his inefficiency could be made apparent. The surgeon need not feel himself responsible should "any evil or fatal result ensue from negligence or refusal" if he has previously offered his services with the provision that the quack in attendance be first discharged. Little time need be lost to the patient or his friends in doing this, and it should in all cases be the alternative offered by the surgeon where any kind of charlatan is in attendance.

The profession have no other opportunity so good for administering a severe rebuke to a quack as when he is obliged to acknowledge his inability as a surgeon, and that his want of respectability prevents him from having a surgeon meet him in consultation. No respectable surgeon in the city of Philadelphia would give his services in a case where any variety of ir-

regular was in attendance, excepting where the emergency was so great that time could not, with safety to the patient, be allowed for his discharge. We believe that the same proper avoidance of professional intercourse with quacks prevails generally among the profession in American cities, but we have been informed by prominent medical practitioners, residing in the city of New York, that there are among them surgeons in very high repute who thus habitually demean their profession.

The conduct of Mr. Fergusson in this matter is exceedingly discreditable, made more conspicuous, as it is, by his eminent position, and deserves an exemplary reprobation.

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EDITORIAL NOTES AND COMMENTS.
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Free Openings into Suppurating Joints.—To Dr. Cooper, of San Francisco, is due the credit of establishing the great advantage of free openings into suppurating joints, and of illustrating by extensive practice the innocuousness of atmospheric air when admitted into synovial and serous cavities. Dr. Cooper is in error in supposing, as is evident from a recent editorial in his journal, that the treatment of disorganized joints by incision is not to any extent adopted by surgeons. It has been for some years practiced by many surgeons in this country, as by Pancoast, Agnew, Morton, and others of this city; extensively by Bauer, of Brooklyn, and Walter, of Pittsburgh. We believe that the latter named gentleman would dispute with Dr. Cooper, the priority of the practice. We have repeatedly during the last two or three years relieved suffering, and saved joints and limbs in the Philadelphia Hospital, by free incisions into suppurating articulations. The practice has also been to some extent adopted abroad, and we have seen the subject favorably noticed in European journals with proper credit to Dr. Cooper.

While giving Dr. Cooper credit for really establishing the advantage of this treatment in an extensive number of cases, and of being the author of its introduction as an established rule of practice, any real originality in the treatment cannot be claimed by him. It has been the practice of some surgeons, for a long period, to occasionally open suppurating joints for the escape of pus and the debris from the diseased articulating surface. If we could take the time to look up the literature of the subject

this assertion might be abundantly proved. The only case in evidence to which we can at present refer Dr. Cooper occurred a long time ago in the practice of Mr. Gay, of London, and is recorded in an article by him in *Braithwaite's Retrospect*, part xxiv., page 171.

“*The Staff of Life.*”—Bread is said to be “the staff of life,” but composed of such materials as sometimes enter into its composition it can hardly be said to be a “staff” capable of affording much support in the walks of life. Nor can it be supposed that the author of the adage, above quoted, had reference to the sour, half-baked mass which sometimes passes under that name, nor yet to that which is made from adulterated materials, mixed up with decomposing vegetable matters from unclean localities, or spiced with various specimens of insects or the fetid exhalations of diseased workmen. But we suppose that *pure* bread is intended, that which is composed of proper materials in proper quantity and in entire purity; that which contains all the natural elements of good flour, starch, gluten, and sugar, in their original proportions and perfection. No other compound would be equally fitted to give life and vitality to the human system.

Now in the ordinary method of manufacturing the article, especially in our bakeries, it is scarcely possible that such bread can be manufactured. The utmost efforts will hardly suffice to preserve entire cleanliness. The bakery is, perhaps, a low, damp basement, opening upon a filthy street, and swarming with “insect life.” The yeast may be mixed with foreign substances, so that, despite all efforts, the baker’s bread must contain much filth. That which is manufactured at home is much purer, because the vessels used are more carefully looked after, and there is less of filth in the surroundings. Yet none of it may be free from impurity, and we, poor mortals, may console ourselves with the fact that we are all fated to eat each a “peck of dirt before we die.”

And yet science and invention seem to have taken pity on our miserable estate, and given us, as the result of study and experiment, a process by which pure bread is manufactured. The flour is carefully selected, weighed, sifted, mixed, and baked without a human hand touching it. The process is thus described in an exchange: With a due proportion of water, the flour passes through a large iron pipe into a huge hollow globe of fine cast iron, lined with

tin. Through this globe runs an iron shaft with polished steel arms, which, as the shaft revolves, mix and knead the dough. During this operation pure carbonic acid gas, carefully washed, is forced from the gasometer into the globe by a powerful force pump, and is incorporated uniformly into the whole mass. The dough is then forced through a valve into tins for baking, and in an hour and a half from flour in the bin, it is bread beautifully baked. All is done by the iron hands of machinery, and the power of steam. The result is, so it is said, the best and sweetest bread in existence. The flour is unchanged and retains all its natural elements.

The process thus detailed appears exceedingly simple and practicable. It may be too expensive for general use, but bread thus made would no doubt possess the rare merit, *entire purity*, and might properly be denominated the "staff of life."

The Adulteration of Tea.—In the London *Lancet* for Aug. 10, we find the result of the microscopical and chemical analysis of forty-eight samples of tea.

Of the twenty-four specimens of black tea analyzed, every one was found to be genuine. Of a like number of green teas *all were adulterated*. The adulterations are mainly a coloring matter with which the tea leaf is faced, painted or glazed. Ferro cyanide of iron or Prussian blue is the article most commonly used for this purpose. Sometimes, however, indigo, kaolin, or China clay, and turmeric powder were found in addition. That species of tea which is denominated gunpowder, is adulterated in other ways by admixture with leaves not those of tea, with paddy husk, and particularly with "lie tea" so called, a leaf which resembles the tea leaf closely, and is sent to this country from China in vast quantities, to be employed in adulterations here. The coloring of the tea is almost entirely done in China, and probably because it improves its appearance, and perhaps renders its sale more sure and rapid.

Such is the result of a thorough analyzation of this article by eminent scientific men in England, and it is certainly not very flattering to the taste of those who drink green tea for the love of it. There is no such article as an *unadulterated green tea*. Let the lovers of the herb remember that fact, and as they sip the delicious beverage, and fancy they find in it a solvent for their aches and pains, let them also remember that they are sipping with it a solution of Prussian blue and indigo, as well as

sundry other little peccadilloes, that neither add to its exhilarating properties, nor yet are entirely harmless to the system. On the other hand, the black teas are not adulterated, and are the only ones used by the Chinese. Knowing the impurities that are in the best green teas, they send them to foreign ports to tickle the delicate palates of the English, the French, and the American, who, in their view, fancy the bright lively appearance imparted by the coloring compositions they use.

The remedy for these wholesale adulterations is easy. It is entirely in the hands of the tea merchants. If they refuse to buy the poisoned leaf, the Chinamen will very quickly stop adulterating it.

Is Diphtheria a New Disease in Philadelphia?—The following extract of a letter, from the celebrated Dr. Benjamin Rush, is taken from Duncan's *Medical Commentaries*, (Vol. iii., p. 103; Edinburgh, 1775.) As the disease it describes was new to him, and was characterized by patches of phlegm, which resembled sloughs, may it not have been diphtheria?

"We have lately had a disorder among us which is new in this country. It is the fifth species of Dr. Cullen's Cynanche. Dr. Tissot describes it in a particular manner in his advice to the people. It was at first mistaken for the putrid sore-throat; but the ill success which attended the exhibition of bark and wine in it, soon convinced us that it was not of a malignant nature. What led to this mistake was, that there were ulcers much oftener seated in the tonsils than behind the ears, and they were often covered with phlegm, which resembled sloughs. I followed strictly Dr. Tissot's method of cure; that is, I bled in severe cases, vomited, purged, and blistered, as the symptoms required.

"I forbade stimulating food of all kinds, and kept up a gentle perspiration, with diluting drinks. This treatment I found successful in every case to which I was called."

The Pennsylvania Medical College.—The Faculty of the Pennsylvania Medical College, in view of a prospective reduction of the income of the Institution, owing to the present disturbed state of the country, recently demanded of their Board of Trustees, who control the College building, a reduction in the expenses incurred by its occupancy. Up to this date, no reduction has been acceded to, and probably, from some technicalities, could not be before the next regular meeting of the Board of Trustees of the parent institution at Gettysburg. The Faculty have, however, in the meantime, avoided the incurring of responsibility by all resigning their chairs. The regular meeting of the Board of Trustees will be held on the 17th of September, when negotiations of a favorable character to the progress of the Institution may take place.

Gratuitous Inoculation for the Small-pox in Philadelphia prior to the Revolutionary War.—"There is now a society established in the City of Philadelphia for inoculating poor children. It consists of twelve managers and eight physicians. The former provide medicines, and, in some cases, firewood and other necessaries; and the latter inoculate and attend the poor at their own houses. The benefit of this institution to the community is great, and the expense and trouble very trifling. The managers receive applications from the poor in their turns. Each physician is confined to a particular part of the town, which is most contiguous to his dwelling-house; so that the whole is conducted with as much regularity as an hospital, without any of its disadvantages. The scheme of this institution was suggested by observing that, in the year 1773, above three hundred people, out of fourteen hundred, died of the small-pox in the natural way in this city. The greatest part of these were poor people, who could not afford the expense of inoculation."—(Letter of Dr. Benjamin Rush, in *Duncan's Medical Commentaries*, vol. iii., p. 104; Edinburgh, 1775.)

Dr. Brodie and Homœopathy.—The *Medical Times and Gazette* says:—"It having been stated that Sir B. Brodie had 'repeatedly received fees from the hand' of a Homœopath, Sir Benjamin has authorized the publication of a letter, dated Betchworth, July 27, which contains the following very explicit declaration—one which will, we trust, effectually put a stop to all excuse for 'meeting,' 'consulting,' or 'attending with' Homœopaths:

"I feel confident that our profession generally will do me the justice to believe that I would not, either directly or indirectly, do anything that would in any way sanction a system so absurd and nonsensical as I know the so-called Homœopathy to be.

"Having been in the habit of seeing, especially at my own house, many patients attended by practitioners of whom I had no knowledge, I cannot say that I may not by accident have occasionally seen some one attended by a Homœopath; but I have never knowingly done so; and I do not think that any well educated medical practitioner can honestly meet one of these Homœopaths in consultation. The only object of a consultation is to do good to the patient; and it is out of the question to suppose that any interchange of idea with one in whose professed opinions we have not the smallest faith, and whose notions, indeed, we cannot comprehend, can tend to this result."

Books and Pamphlets Received.—Godey's *Lady's Book*, Philadelphia; *Harper's Monthly*, New York; *Atlantic Monthly*, Boston; *Monthly Bulletin of Foreign Literature*, Philadelphia; *De Cella Vitali Scripsit*, Dr. H. Karsten, from Fred. Leyboldt, Foreign Bookseller, 1323 Chestnut street; *Transactions of the Tenth Annual Meeting of the Illinois State Medical Society*, 1860; *Fiske Fund Prize Essay*, Rhode Island Medical Society; *Communications of the Rhode Island Medical Society for 1861*; *Physicians Visiting List*, 1862, Lindsay and Blakiston, 25 South Sixth street, Philadelphia.

Correspondence.

A UNIQUE CASE—DID IT EVER OCCUR BEFORE?

Freewsburg, N. Y., Aug. 20, 1861.

EDITORS REPORTER:—A case occurred to me last night, the like of which has never previously fallen to my lot to observe. I wish to present it to the profession, and inquire if it is unique:

I was called at eight o'clock last evening to visit and attend a married lady, aged only sixteen years, in confinement. As she resided but a mile from my office, I was soon there. I found her well advanced in the first stage of labor. For a lady of her age, and in her first confinement, the labor was quite rapid—it was completed by half-past nine o'clock, or about an hour after my arrival. During the last half hour I sat by the patient, with my right index finger in the vagina. In due time the perineum was supported, and the child received as usual. The child cried lustily at once, and, consequently, the cord was tied with one thread, cut, and the child removed. I did not observe whether the cord bled or not. Waiting, perhaps, one minute, I took hold of the cord with my left hand, passed the index finger of the right hand into the vagina, found there the placenta, and by traction on the cord and leverage with my finger, removed it at once. What was peculiar *my right hand and fingers did not bear the least stain of blood!*

O. C. GIBBS, M. D.

Course of Operative Surgery.—Dr. D. H. Agnew will soon commence a course of lectures and demonstrations of Operative Surgery. It will be thoroughly practical, and illustrated by the extensive resources in possession of the lecturer.

This opportunity will be appreciated by medical students, and particularly by Army Surgeons, and those preparing for such positions.

The course will be separate from his regular course on Anatomy.

NEWS AND MISCELLANY.

The Health of San Francisco.—During the month of June the weather was mild, generally warm every day till towards one in the afternoon, when the winds from the sea, as usual in summer, blew wildly, filling the air with drifting mist or sand, or both. No rain. Five shocks of earthquakes, one of four seconds duration. There were some cases of diphtheria and scarlet fever; many of measles and whooping cough. There were also a few cases of small-pox; but this disease manifested no tendency to become epidemic. There was a large number of cases of affections of the fauces in the adult, more or less simulating true diphtheria, but these cases readily yielded to gargles, nutritious diet and stimulants. We have hardly a doubt of the contagious nature of these diphtherito-ulcerative diseases of the fauces to persons sufficiently near to inhale the expiration of the patient after the disease has progressed a day or two, or until the exudation has begun to break down and become muco-purulent. Twice during the month of June, and the first half of the current month, we have had sore throat, with considerable exudation, fever and depression after treating adult cases of the same affection.

Acute diseases of the lungs were not frequent during the past month, and old cases of phthisis pulmonalis, or chronic bronchitis were apparently much ameliorated, though some few terminated fatally.

Cases of organic disease of the heart seem not subject to much improvement by meteorological changes. Of acute rheumatism there were few, if any new cases; two suicides; no murders. For the living, and for those who have not to mourn the death of friends, June was a delightful month. But during those short thirty days, our sadly-beautiful city of the dead received into its silent bosom one hundred and nineteen of our population. Of this number eighty were buried in the Protestant, thirty-eight in the Catholic, and one in the Jewish cemetery; twenty-eight of all these cases were under three years of age.—*Pacific Med. and Surg. Jour.*

Surgeons in Active Service.—The following Surgeons and Assistant Surgeons were with the regiments of the United States army in its attack upon Manassas, Va., on the 19th and 21st ult. Of the Staff, Surgeon W. S. King, U. S. A., and Assistant Surgeon D. L. Magruder, U. S. A.

Connecticut Volunteers.—1st Reg., Surg., C. P. Stearus; Assis't Surg., Frederick Dibble; 2d Reg., Surg., A. T. Douglass, of New London; Assis't Surg., Francis Bacon, of New Haven; 3d Reg., Surg. John McGregor, of Thompson; Assis't Surg., Matt. T. Newton, of Suffield.

Maine Volunteers.—2d Reg., Surg., Wm. H. Allen, of Orono; Assis't Surg., A. O. Hamlin,

of Bangor; 3d Reg., Surg., G. S. Palmer, of Gardiner; 4th Reg., Surg., Wm. A. Banks, of Rockland; Assis't Surg., Elisha Hopkins, Jr., of Searsport; 5th Reg., Surg., — Buxton, of Warren; Assis't Surg., F. G. Warren, of Biddeford.

Ohio Volunteers.—1st Reg., Surg., — McMillan, of Columbus; Assis't Surg., — Wilson; 2d Reg., Surg., —; Assis't Surg., —.

New York Volunteers.—2d Reg., Surg., A. Powell; Assis't Surg., S. E. Ferguson; 69th Reg., Surg., Kiernan; 79th Reg., Surg., James Norval; 13th Reg., Surg., — Little; Assis't Surg., — Avery; 12th Reg., Surg., R. W. Pease; Assis't Surg., G. B. Todd; 8th Reg., (Militia,) Surg., John C. Dalton; Assis't Surg., T. R. Smith; 14th Reg., Surg., J. M. Homeston; 1st Assis't Surg., J. L. Early; 2d Assis't Surg., F. Swain; 27th Reg., Surg., — Barnes; Assis't Surg., — Moore; 71st Reg., Surg., — McMillan; Assis't Surg., — Dodge; 11th Reg., (Ellsworth's Zouaves,) Surg., C. A. De Villiers; 38th Reg., Surg., A. Berry; Assis't Surg., S. Griswold; 8th Reg., Surg., Rudolph Welcker; Assis't Surg., Francis Stackly; 29th Reg., Surg., C. Newhaus; Assis't Surg., C. H. Osborne; — Reg., (Garibaldi Guard,) Surg., A. Mager; 16th Reg., Surg., W. H. Crandall; Assis't Surg., John H. Moore; 31st Reg., Surg., Frank H. Hamilton, of Brooklyn; Assis't Surg., Lucien De Mainville; 18th Reg., Surg., W. Van Ingen; Assis't Surg., — Edmondson; 17th Reg., Surg., J. C. Stewart; Assis't Surg., A. B. Shipman, of Syracuse; 32d Reg., Surg., W. B. Little; Assis't Surg., W. North West.

Wisconsin Volunteers.—2d Reg., Surg., J. M. Lewis.

Michigan Volunteers.—1st. Reg., Surg., Wm. Brodie, of Detroit; Assis't Surg., Cyrus Smith; 2d Reg., Surg., A. B. Palmer; Assis't Surg., Nathan Webb; 3d Reg., Surg., D. W. Bliss; Assis't Surg., Z. E. Bliss; 4th Reg., Surg., Thomas Tunicliff; Assis't Surg., D. P. Chamberlain.

Minnesota Volunteers.—Surg., J. H. Stewart; Assis't Surg., C. W. Le Boutillier.

Massachusetts Volunteers.—1st Reg., Surg., R. H. Salter, of Boston; Assis't Surg., Samuel A. Green, of Boston; 5th Reg., Surg., M. W. Hurd; Assis't Surg., W. W. Keen, Jr., (of Philadelphia.)

Rhode Island Volunteers.—1st Reg., Surg., Francis L. Wheaton; 1st Assis't Surg., Henry H. Rivers; 2d Assis't Surg., George W. Carr, all of Providence; 2d Reg., Surg., Francis L. Wheaton.

New Hampshire Volunteers.—2d Reg., Surg. Geo. H. Hubbard.

Vermont Volunteers.—2d Reg., Surg., N. H. Ballou; Assis't Surg., W. B. Carpenter, both of Burlington.

Pennsylvania Volunteers.—27th Reg., Surg., P. Heller; Assis't Surg., M. Heller, both of Philadelphia.

The Sick in the Hospitals at Washington.—The weekly report issued on Tuesday last, shows that there are 124 patients in the General hospital, on E street, in Washington; 55 in C street hospital; and 211 in Columbia College hospital. In Seminary hospital, Georgetown, 174; Union hospital, Georgetown, 179. Total, 743, in which the hospital at Alexandria is not included.

The Sanitary Commission.—The commission makes the following recommendations:—

1. The accumulation of hospital supplies and bedding at safe localities near the main body of the army.

2. The erection of wooden pavilions, properly constructed, and each accommodating thirty to sixty patients.

3. The selection from the civil hospitals of one or more practiced male nurses, for especial attendance upon serious surgical cases.

4. The establishment of a general military hospital in the harbor of New York.

5. If the present hospitals are to be occupied during the winter, immediate correction of their architectural defects.

Assistant Surgeons Appointed.—The following approved candidates have been appointed assistant surgeons in the medical staff of the army, in the order stated, to fill vacancies created by the casualties of the service:

First—John Bell, of New Hampshire, vice Edgar, promoted. May 21.

Second—John Howell, of Janeway, Pa., vice Coney, resigned. June 1.

Third—Henry Augustus Du Bois, of New York, vice Gilson, resigned. June 1.

Fourth—Benj. Howard, of New York, vice Guild, dropped from rolls. July 1.

Fifth—Henry Chester, of Parry, Pa., vice Ridgely, resigned. July 31.

Sixth—Henry Remson, of Tilton, N. J., vice Hollenbush, deceased. August 6.

Seventh—Samuel Miller, of Horton, Pa., vice Gaenslen, resigned. August 16.

Eighth—John C. G. Happersett, of Pennsylvania, vice Ramseur, dismissed. August 17.

Rank of Surgeons.—*The Medical Times* says:—We believe the regimental Surgeons of our volunteer army are not generally aware of their proper rank. For the most part they assume the rank and consequently dress of a Captain, when in truth they are entitled to that of Major. This error grows out of the fact that in the State service the rank of the Surgeon is that of Captain, but when mustered into the United States service the rank is changed to that of Major. It is important that the Surgeon should assume his proper rank, not only to maintain the dignity of his position, but to receive that deference to his authority which such rank alone gives him. We hope every Surgeon will act upon this hint, and take his proper position in the regimental staff, and demand a corresponding degree of authority.

Appointments.—Dr. E. D. G. Smith, of New-ark, N. J., has been appointed Assistant Surgeon in the Navy, and ordered to Boston. Dr. James C. Fisher, of Burlington, and Dr. W. W. L. Phillips, of Trenton, have been appointed Surgeons in New Jersey regiments. There is a perceptible improvement in the character of appointments to the medical service of the Army and Navy.

Typhoid Fever is somewhat prevalent in the military hospitals in Washington city, though the general health of the troops continues excellent.

The southern newspapers continue to report a vast amount of sickness among the southern troops, and a good deal of suffering for lack of proper clothing, medicines, etc.

Spots on the Sun.—There are now more spots on the sun than have been seen for many years; some of these are visible through a smoked glass to the naked eye. Several stars—some of them of great brilliancy, which, from their ascertained distance, must have been as large as our sun—have totally disappeared from the sky; and the question has been raised among astronomers whether the light and heat of the sun are fading away. As this would be accompanied by the destruction of all the plants and animals on the earth, it is rather an interesting question. The sun's light and heat are diminished by the dark spots, at the present time, about one per cent.

Aerophytes.—A paper has been communicated to the *Moniteur Scientifique*, by M. de Luca, Professor of Chemistry in Paris, detailing the result of an analysis of one of those wonderful plants that vegetate suspended in the air, without any contact with the soil. He found that such a plant as the *Tillandria Dianthoidea*, after being burned, contained 10 per cent. of ashes, in which were silica, lime, magnesia, potash, soda, phosphoric acid, and a very appreciable quantity of iron, manganese, sulphuric acid, and chlorine. This plant must have attracted its mineral elements from the dust which was floated on the breeze.

The Electric Light.—The electric light, which is now used to illuminate the Place de Palais Royal, Paris, has lately been subject to remarkable changes in its brilliancy, arising from a very singular and unexpected cause. Every evening—and especially after a very warm day—clouds of insects collect around it, and each of them appears to be drawn irresistably toward the bright points of burning carbon, but the instant they touch it they are broiled to death. The numbers that crowd to it, however, are so enormous that the light appears at times to be almost extinguished by burning insects, and every morning the bodies of these unfortunate suicides are found heaped up at the bottom of the lantern in thousands and tens of thousands. But as an ingenious French *savant* has luckily